



Pest Alert

Wavyleaf Basketgrass

Oplismenus undulatifolius

Threat

Wavyleaf basketgrass (*Oplismenus undulatifolius*) is an aggressive invasive species rapidly spreading in the mid-Atlantic States. Where it is native in southern Europe and Southeast Asia, it is found in forest understory. The invading grass forms a dense continuous carpet that can suppress native herbs, shrubs, and tree seedlings. A 2012 USDA weed risk assessment identified wavyleaf basketgrass as a high-risk invasive species ([USDA-APHIS PPQ 2012](#)).

Identification

Wavyleaf basketgrass is a low-lying, trailing perennial grass that branches and roots at nodes along creeping stems called stolons. Leaf blades are flat, about 0.5 to 1 inch wide and between 1.5 and 4 inches long. The deep green leaves have rippling waves running perpendicular to the midrib from the base to the elongated leaf tip (figure 1). Leaf sheaths and stems are noticeably hairy, although the hairs are short, approximately 0.25 cm long. Wavyleaf basketgrass typically blooms and sets seeds from mid-



Figure 1.—The leaves of wavyleaf basketgrass next to a mechanical pencil for size. Photo courtesy of Carrie Wu.

August into November. The flowering spikelets have glumes (lower bracts) with very long awns (extended, pointed tips) (figure 2). The awns secrete a sticky substance that allows the grass seed to readily disperse by adhering to passing hikers or animals.

Current Distribution

Two small populations of *Oplismenus undulatifolius* were discovered in Maryland's Patapsco Valley State Park in 1996. In 2005, the grass was found in Shenandoah National Park in Virginia. Known infestations have been confirmed in at least 15 counties in **Maryland** (Anne Arundel, Baltimore, Baltimore City, Calvert, Caroline, Carroll, Charles, Frederick, Garrett, Harford, Howard, Montgomery, Prince George's, Washington, Worcester) and over 20 counties in **Virginia** (Albemarle, Arlington, Augusta, Carroll, Clarke, Culpeper, Fairfax, Fauquier, Greene, Loudoun, Madison, Nelson, Page, Powhatan, Prince William, Rappahannock, Richmond City, Rockbridge, Rockingham, Spotsylvania, Stafford, Sussex, Warren) ([DCR 2022](#)). Within the last 5 years, wavyleaf basketgrass has been detected in **Pennsylvania** (Berks, Lancaster, Philadelphia, York),



Figure 2.—Wavyleaf basketgrass inflorescence characterized by long awned florets that contain maturing seeds. Photo courtesy of Carrie Wu.

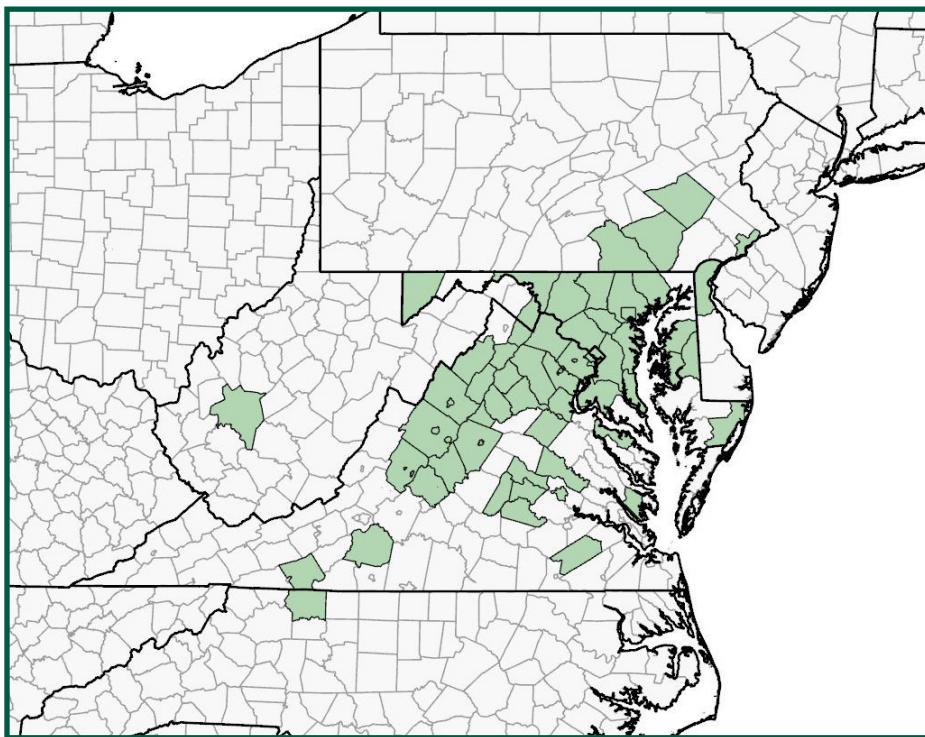


Figure 3.—Counties in the mid-Atlantic region where the invasive wavyleaf basketgrass has been detected as of August 2023. Map courtesy of University of Richmond.

West Virginia (Jefferson, Kanawha),
Delaware (New Castle), **North Carolina** (Surry), and **Washington DC** (figure 3).

Report Sightings

The public is encouraged to be on the lookout for wavyleaf basketgrass. If you believe you found wavyleaf basketgrass, please report your sighting!

- » Call or email the contacts below.
- » Use [EDDMapS](#), Early Detection and Distribution Mapping System, an online mapping tool; or [iNaturalist](#), a data sharing community (both have free registration).

It is extremely helpful to take GPS coordinates and close-up photographs that focus on the full leaf, including where it meets the stem and the sheath showing any hairs that are present as well as any apparent flowering or seeds.

For more information, contact:

Carrie Wu

Associate Professor of Biology
 University of Richmond
cwu@richmond.edu
 (804) 289-8712

Heather Smith

Plant Biologist
 USDA Forest Service
 Eastern Region State, Private, and Tribal Forestry
heather.c.smith@usda.gov
 (304) 285-1567

Cynthia D. Huebner

Research Botanist
 USDA Forest Service
 Northern Research Station
cynthia.d.huebner@usda.gov
 (304) 285-1582

References & Resources

- DCR (Virginia Department of Conservation and Recreation). [n.d.]. Virginia Invasive Species – Early Detection Species of Virginia: Wavyleaf grass (*Oplismenus undulatifolius*) [map]. <http://www.invasivespeciesva.org/species/wavyleaf>. (February 2023).
- DCR (Virginia Department of Conservation and Recreation). 2022. Invasive Plant Alert: Wavyleaf Grass (*Oplismenus undulatifolius*). Richmond, VA: Virginia Department of Conservation and Recreation, Division of Natural Heritage. <https://www.dcr.virginia.gov/natural-heritage/document/fswavy.pdf>.
- EDDMapS (Early Detection & Distribution Mapping System) [Revised April 2023]. Tifton, GA: University of Georgia, Center for Invasive Species and Ecosystem Health. <https://www.eddmaps.org/>. (February 2023).
- USDA APHIS PPQ (U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine). 2012. Weed Risk Assessment for *Oplismenus hirtellus* (L.) P. Beauv. subsp. *undulatifolius* (Ard.) U. Scholz (Poaceae) – Wavyleaf basketgrass. Version 3. Washington, DC: USDA APHIS PPQ. 15 p. <https://www.aphis.usda.gov/media/document/59921/file>.